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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,439	09/18/2004	Alberto Garcia Briz	03809	5438
23688	7590	03/15/2006	EXAMINER	
Bruce E. Harang PO BOX 872735 VANCOUVER, WA 98687-2735			TRIEU, VAN THANH	
			ART UNIT	PAPER NUMBER
			2636	
DATE MAILED: 03/15/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/711,439	<b>Applicant(s)</b> GARCIA BRIZ, ALBERTO	
	<b>Examiner</b> Van T. Trieu	<b>Art Unit</b> 2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/18/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: in the Specification filed on 18 September 2004, page 3, line 5, [para. 11], replace the phrase "Description" with --- Summary ---.

Appropriate correction is required.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the casing closed with a cover, a computer on board said vehicle, the PWM, the accelerometer, the inclinometer, the humidity sensor and the temperature sensor must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 5, the phrase "which is at least one in number" is indefinite to unclear what is the number.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 13-15, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by **Bejster et al** [US 5,680,098].

Regarding claim 1, the claimed a rear lighting system applied to an automotive vehicle, of the type comprising: at least one supporting element and a plurality of light sources

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assembled on the supporting element (the front lights 14 and rear lights 16, see Figs. 2 and 3, col. 2, lines 4-38); and a control means electrically connected to the light sources to actuate them such that the light sources can emit with at least two light intensity levels in order to carry out at least two corresponding lighting functions, one of which consists of acting as brake lights (the controller 12, see Fig. 4, col. 1, lines 41-44 and col. 2, lines 11-38); and characterized in that the control means comprise detection means for detecting a malfunctioning of at least one of the light sources, and in that the control means are adapted to compensate for a corresponding variation in the total light intensity provided by the system due to the malfunctioning by means of actuating or deactivating at least another one of the light sources and/or increasing or decreasing the current to be made to circulate through at least the other light source or another different one (the when the current detector 48 senses a failure of a lamp, the processor 40 determines which adjacent lamp should be provide the function of the failed lamp, including changing duty cycle and intensity, see Fig. 4, col. 1, lines 44-49, col. 2, lines 51-67 and col. 3, lines 1-1-37).

Regarding claim 2, the claimed a plurality of light sources are divided into a first group or main group, and a second group or spare group, which are actuated by the control means to compensate for the malfunction of any of the light sources of the first group if necessary (the controller 12 with processor 40 to actuate any adjacent lamps to compensate for any of the failure lights 14 or 16, see Figs. 2-4, col. 1, lines 44-49, col. 2, lines 51-67 and col. 3, lines 1-1-37).

Regarding claim 3, all the claimed subject matters are cited in respect to claim 1 above.

Regarding claim 4, the claimed acting as anti-fog lights (the fog lamp 24, see Fig. 2).

Regarding claim 5, the claimed third lighting function consisting of acting as side lamps (the side lamps 50 and 52, see Fig. 4, col. 2, lines 44-48).

Regarding claim 13, all the claimed subject matters are cited in respect to claim 1 above, see Fig. 4.

Regarding claim 14, the claimed PWM technique (the PWM 44, see Fig. 4, col. 2, lines 44-63).

Regarding claim 15, the claimed brake lights (the brake lamps 34, see Fig. 3, col. 2, lines 32-38).

Regarding claim 19, all the claimed subject matters are cited in respect to claims 1 and 4 above.

Regarding claim 20, all the claimed subject matters are cited in respect to claim 4 above.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Bejster et al** [US 5,680,098] in view of **Bruwer et al** [US 6,828,739].

Regarding claim 6, **Bejster et al** fails to disclose the light sources are LEDs. However, **Bejster et al** teaches that the front lights 14 and rear lights 16 are conventional light/bulb having to filaments, see Figs. 2 and 3, col. 1, lines 13-19). **Bruwer et al** suggests that two LEDs 18 and 20 are for use on the vehicle such as headlights, brake lights, tail lights, and so on, may take on any form comprising incandescent elements or filaments, halogen quartz units, discharge devices. Upon detecting failure of one of the light sources, the other light source will be actuated for compensating the failure light source, see Figs. 1-3, col. 1, lines 35-58 and col. 2, lines 12-18. Therefore, it would have been obvious to one skill in the art at the time the invention was made to substitute the LEDs light sources of **Bruwer et al** for the conventional light bulbs of **Bejster et al** because the light source can be taken in any form without limiting the operation functions of the light sources.

6. Claims 7-12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bejster et al** and **Bruwer et al** and further in view of **Tillinghast et al** [US 5,785,413].

Regarding claim 7, **Bejster et al** fails to disclose supporting element is a rigid or flexible printed circuit and in that the LEDs are welded to electro-conducting tracks thereof.

**Bejster et al** silences of the assembly the front lights 14 and rear lights 16 to the light case assembly, see Figs. 2 and 3. **Tillinghast et al** suggests that the light/lamp fixture 10 having control circuitry mounted on a common printed circuit board PC 12, which is fit in standardized light fixture openings utilized in some vehicle manufacture, see Figs. 1-3, col. 3, lines 21-27. Therefore, it would have been obvious to one skill in the art at the time the invention was made to utilize the PC of **Tillinghast et al** for mounting the front/rear lights or LEDs of **Bejster et al** and **Bruwer et al** since the PC is designed to fit in standardized light fixture in the vehicle.

Regarding claim 8, **Bejster et al** fails to disclose the control means comprises an electronic system comprising at least one microprocessor associated to the detection means. However, **Bejster et al** teaches that the controller 12 has a processor 40, a memory 42, PWM 44, a multiplexer 46 and a current detector 48, see Fig. 4, col. 2, lines 39-45. **Tillinghast et al** suggests that the controller 44 as a microcontroller or a microprocessor is in communication with the trigger circuit 54, low intensity lamp switch means 50 and an external control circuit 43 to operate the vehicle light functions, see Fig. 4, col. 4, lines 11-28. Therefore, it would have been obvious to one skill in the art at



the time the invention was made to substitute the microprocessor of **Tillinghast et al** for the processor of **Bejster et al** and **Bruwer et al** since the processor has memory and multiplexer circuits and PWM integrated into a single chip to eliminate wires/cables, size and weight of the controller.

Regarding claim 9, all the claimed subject matters are discussed between **Bejster et al** and **Bruwer et al** and **Tillinghast et al** in respect to claim 8 above, see Figs. 2, 3 of **Bejster et al** and 1, 3 of **Tillinghast et al**.

Regarding claim 10, all the claimed subject matters are discussed between **Bejster et al** and **Bruwer et al** and **Tillinghast et al** in respect to claim 9 above.

Regarding claim 11, all the claimed subject matters are discussed between **Bejster et al** and **Bruwer et al** and **Tillinghast et al** in respect to claim 9 above.

Regarding claim 12, **Bejster et al** fails to disclose the electronic system forms part of a computer on board the vehicle. However, **Bejster et al** teaches that the external switch input 56 and indicator 58 such as dash light or an audible indicator is connected to the controller 12 with processor 40 to provide information to the vehicle operator as to the operation of the vehicle lamps 14 and 16, see Fig. 4, col. 2, lines 49-50 and col. 3, lines 12-28. **Tillinghast et al** suggests that the controller 44 as a microcontroller or a microprocessor is in communication with the trigger circuit 54, low intensity lamp switch

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means 50 and an external control circuit 43 as a simple microcontroller/microprocessor located at the driver's compartment, which allows a driver/user to operate the vehicle light functions, see Fig. 4, col. 4, lines 11-28, col. 5, lines 65-67 and col. 6, lines 1-14. Therefore, it would have been obvious to one skill in the art at the time the invention was made to substitute the external microcontroller of **Tillinghast et al** for the external switch and indicator of **Bejster et al** and **Bruwer et al** since the external microcomputer includes addresses for controlling each of the vehicle lighting system.

Regarding claim 18, all the claimed subject matters are discussed between **Bejster et al** and **Bruwer et al** and **Tillinghast et al** in respect to claims 12 and 15 above.

7. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bejster et al** [US 5,680,098] in view of **Freeman et al** [US 5,231,373].

Regarding claim 16, **Bejster et al** fails to disclose the sudden speed reduction of the vehicle is detected by means of an accelerometer included in the system. However, **Bejster et al** teaches that the controller 12 operates a brake lamp 34 operate when the brake pedal of the vehicle is being depressed, see Fig. 3, col. 2, lines 32-33. The rear turn lamp 32 or rear park lamp 30 would also acts as a brake lamp function when the brake lamp 34 is failure, see Figs. 3 and 4, col. 4, lines 8-11. **Freeman et al** suggests that a vehicular illumination control system 10 automatically controls intensity of a signal light source, center mounted brake signal SL, brake lights 14L, 14R, a sudden deceleration and/or light level due to depress of a brake pedal 12 and sensed by an

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accelerometer sensor as a G-force 16, see Figs. 1 and 2, col. 2, lines 13-28 and col. 4, lines 36-68. Therefore, It would have been obvious to one skill in the art at the time the invention was made to implement the accelerometer sensor of **Freeman et al** to the controller of **Bejster et al** for automatically illuminate the brake lights due to suddenly deceleration caused by brake pedal, accident, tilting road and/or road conditions in order to early warning of following vehicles and to prevent of collision.

Regarding claim 17, all the claimed subject matters are discussed between **Bejster et al** and **Freeman et al** in respect to claim 16 above, and the inclinometer (G-force sensor 16).

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Bejster et al** [US 5,680,098] in view of **Okubo et al** [US 6,969,183].

Regarding claim 6, **Bejster et al** fails to disclose the fog sensor device comprises at least one humidity sensor and one temperature sensor. However, **Bejster et al** teaches that a controller 12 controls to actuate a fog lamp 24 is actuated due to fog conditions, see Fig. 2, col. 2, lines 7-10. **Okubo et al** suggests that a digital lighting system for a vehicle comprising a controller 6 coupled to an environmental detector 5 for determining whether it is foggy based on at least one of the image signal obtained by imaging the information on surroundings of the vehicle by the imaging device of the surrounding environment detector 5 and output from the imaging device, the radar signal obtained by detecting the reflected wave from the target in the surroundings of the vehicle by the

radar of the surrounding environment detector 5 and output from the radar, the humidity signal obtained by detecting the humidity of the surroundings of the vehicle by the humidity sensor of the surrounding environment detector 5 and output from the humidity sensor, and the temperature signal obtained by detecting the temperature of the surroundings of the vehicle by the temperature sensor of the surrounding environment detector 5 and output from the temperature sensor, and outputs a signal indicating that it is foggy or a signal indicating that it is not foggy, see Figs. 1, 14, 15 and 18, col. 2, lines 49-67, col. 3, lines 1-23 and col. 17, lines 23-30. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the humidity and temperature environmental detector of **Okubo et al** to the controller of **Bejster et al** for improving the reliability of the vehicle lighting system by automatically detecting of foggy conditions to actuate the fog lamp for helping a driver visibility to prevent incident.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Salsman** discloses a vehicle acceleration indicator device, which operates with the braking system of the vehicle, including an array of lights, inertial switch apparatus and interconnecting circuitry. [US 5,089,805]

**Ito et al** discloses a lighting system providing an auxiliary lighting circuit for turning on an auxiliary light source in place of the discharge lamp if the abnormality in the lighting circuit is detected. [US 6,417,624]

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10. Any inquiry concerning this communication or earlier communications from examiner should be directed to primary examiner **Van Trieu** whose telephone number is (571) 272-2972. The examiner can normally be reached on Mon-Fri from 7:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. **Jeffery Hofsass** can be reached on (571) 272-2981.

A handwritten signature in black ink, appearing to read 'Van Trieu', with a long, sweeping horizontal stroke extending to the right.

**Van Trieu**  
**Primary Examiner**  
**Date: 3/8/06**